



## INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

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(21) International Application Number: <b>PCT/IB99/01183</b> (22) International Filing Date: <b>24 June 1999 (24.06.99)</b> (30) Priority Data: <b>98/9822</b> <b>28 October 1998 (28.10.98)</b> <b>ZA</b> (71)(72) Applicant and Inventor: <b>DUFFY, Gavin, Richmond</b> <b>[ZA/ZA]; 24 Montrose Road, Sunninghill, 2196 SAND-</b> <b>TON (ZA).</b> (74) Agents: <b>GILSON, David, Grant et al.; Spoor and Fisher, PO</b> <b>Box 41312, 2024 Craighall (ZA).</b>		(81) Designated States: <b>AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZA, ZW, ARIPO patent (GH, GM, KE, LS, MW, SD, SL, SZ, UG, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG).</b>  Published <i>With international search report.</i>
(54) Title: <b>BEVERAGE CONTAINER FOR A CARBONATED BEVERAGE</b>  (57) Abstract  This invention relates to a beverage container (10) for a carbonated beverage. The container (10) includes a beverage holder (12), a carbonated beverage held under pressure within the beverage holder, and a dispensing device in the form of an atomiser (14) for dispensing the beverage from the beverage holder in a fine spray. The atomiser (14) is movable between an open condition in which it allows the pressurised beverage to be discharged from the container, and a closed condition in which the beverage holder (12) is hermetically sealed so as to capture the pressurised beverage within the container.  <div style="text-align: center;"> </div> <div style="text-align: center; margin-top: 20px;"> <i>aerosol valve delivers liquid.</i> </div>		

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## BEVERAGE CONTAINER FOR A CARBONATED BEVERAGE

### BACKGROUND OF THE INVENTION

THIS invention relates to a beverage container, and in particular to a beverage container for a carbonated beverage.

Many different types of beverage containers are known. Conventional beverage containers for carbonated beverages generally are hermetically sealed so that, prior to opening the container, the carbon dioxide in the beverage is retained within the container.

Typically, these types of containers include a removable cap or the like which breaks the hermetic seal when removed and which, once removed, cannot be replaced so as to properly seal the container. Accordingly, if the beverage is only partially consumed, carbon dioxide liberated from the remaining portion of the beverage is allowed to escape from the container, and the carbon dioxide content of the beverage is gradually depleted until the beverage becomes flat.

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Generally, the known types of beverage containers for carbonated beverages are designed for pouring a beverage out of the container. Containers having nozzles which can discharge a beverage in a jet are also known, but these types of containers typically form part of a relatively large apparatus for dispensing a beverage into a cup or the like.

It is an object of the present invention to provide a hand-held beverage container which is designed to dispense a carbonated beverage in a fine spray and which, when partially empty, is designed to maintain a hermetic seal so as to prevent carbon dioxide in the beverage from escaping from the container.

#### SUMMARY OF THE INVENTION

According to the invention there is provided a beverage container comprising:

a beverage holder;

a beverage held under pressure within the beverage holder; and

a dispensing device in the form of an atomiser for dispensing the beverage from the beverage holder in a fine spray, the atomiser being movable between an open condition in which it allows the pressurised beverage to be discharged from the container, and a closed condition in which the beverage holder is hermetically sealed so as to capture the pressurised beverage within the container.

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In a preferred form of the invention, the beverage is a carbonated, alcoholic beverage.

Typically, the container includes a removable cap for covering and protecting the atomiser.

In one embodiment, the atomiser carries a flexible extension tube for conveying the beverage to a user's mouth.

#### **BRIEF DESCRIPTION OF THE DRAWINGS**

The invention will now be described in more detail, by way of example only, with reference to the accompanying drawings in which:

**Figure 1** shows a perspective view of a beverage container according to one embodiment of the present invention; and

**Figure 2** shows a perspective view of a beverage container according to another embodiment of the invention.

#### **DESCRIPTION OF THE PREFERRED EMBODIMENTS**

Figure 1 of the drawings illustrates a beverage container 10 according to the present invention. As can be seen, the container 10 includes a beverage holder 12 and a dispensing device in the form of an atomiser 14 connected to the top

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of the beverage holder. The atomiser forms part of a container top 16 which is fitted to the top of the holder 12 so as to form a hermetic seal between the container top and the holder.

In this embodiment of the invention, the holder 12 is formed from aluminium and the atomiser 14 is formed from a plastics material.

The atomiser includes a displaceable head 18 which projects upwardly, as shown, and which can be depressed in the direction of the arrow A. The head 18 is biased into a raised position, as illustrated in Figure 1, in which the atomiser 14 is maintained in a closed condition. In this condition, fluid is prevented from flowing through the atomiser. When the head 18 is depressed in the direction of the arrow A, the atomiser 14 is drawn into an open condition for discharging fluid from the container.

A carbonated beverage (not visible) is introduced into the beverage holder 12 during the assembly of the container 10 so as to be held under pressure within the holder 12. The carbonated beverage in this case is an alcoholic beverage such as, for example, whiskey and soda water. It should be appreciated though that other suitable carbonated beverages could also be contained within the holder 12.

A cap 20 is provided for covering and protecting the atomiser 14 when the atomiser is not required, for instance when the container 10 is transported or stored prior to use.

In practice, a pressurised beverage held within the holder 12 is dispensed by

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depressing the head 18 of the atomiser 14 in the direction of the arrow A. This draws the atomiser into the open condition and thereby allows the pressurised beverage to be emitted from the atomiser in a fine spray. Once a sufficient quantity of the beverage has been dispensed, the head 18 is released so as to be biased back into the raised position, thereby closing the atomiser 14. The atomiser is designed to hermetically seal the beverage holder 12 when it is in the closed condition. Accordingly, as long as the head 18 is in the raised position, carbon dioxide in the beverage is retained within the beverage holder 12.

Figure 2 of the drawings illustrates another embodiment of a container according to the present invention. In this embodiment, a flexible discharge tube 122 extends from an atomiser 114 for carrying fluid from the atomiser into a user's mouth. Apart from the discharge tube 122, the container 110 illustrated in Figure 2 is similar in all other respects to the container 10 of the first embodiment of the invention.

When dispensing a beverage from the container 110, the free end 124 of the discharge tube 122 is introduced into a user's mouth and the head 118 of the atomiser 114 is then depressed. As the head 118 is depressed, the beverage initially is discharged from the beverage holder 112 into the discharge tube 122, and thereafter is conveyed along the tube 122 directly into the user's mouth.

An advantage of the beverage container according to either of the embodiments of the invention described above is that the beverage holder in each case is hermetically sealed and therefore allows a user to consume a

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carbonated beverage over a relatively long time without the beverage becoming flat. Also, the beverage container of the invention allows a user to introduce a carbonated beverage into his or her mouth in a fine spray.



**CLAIMS**

1. A beverage container comprising:

a beverage holder;

a beverage held under pressure within the beverage holder; and

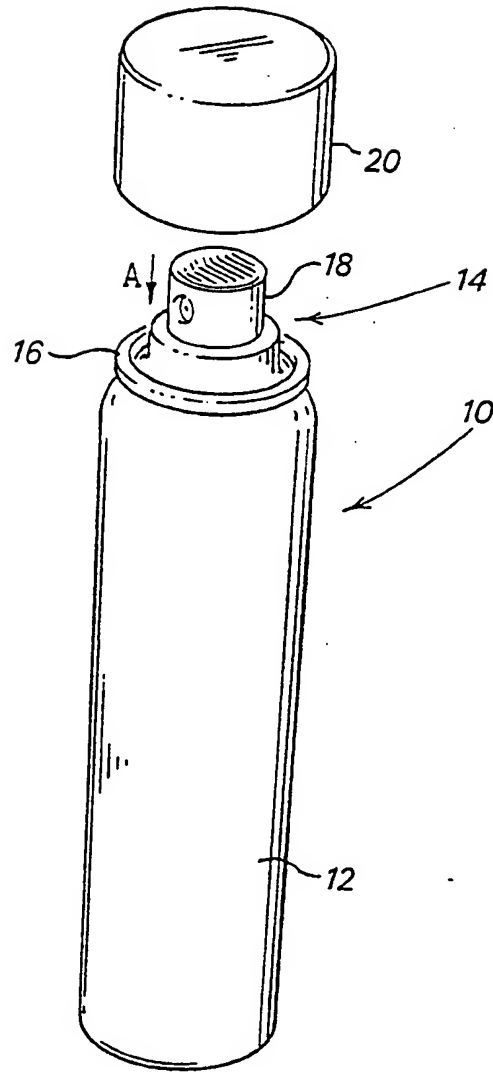
a dispensing device in the form of an atomiser for dispensing the beverage from the beverage holder in a fine spray, the atomiser being movable between an open condition in which it allows the pressurised beverage to be discharged from the container, and a closed condition in which the beverage holder is hermetically sealed so as to capture the pressurised beverage within the container.

2. A beverage container according to claim 1, wherein the beverage is a carbonated, alcoholic beverage.
3. A beverage container according to either claim 1 or claim 2, wherein the container includes a removable cap for covering and protecting the atomiser.
4. A beverage container according to any one of the preceding claims, wherein the atomiser carries a flexible extension tube for conveying the beverage to a user's mouth.

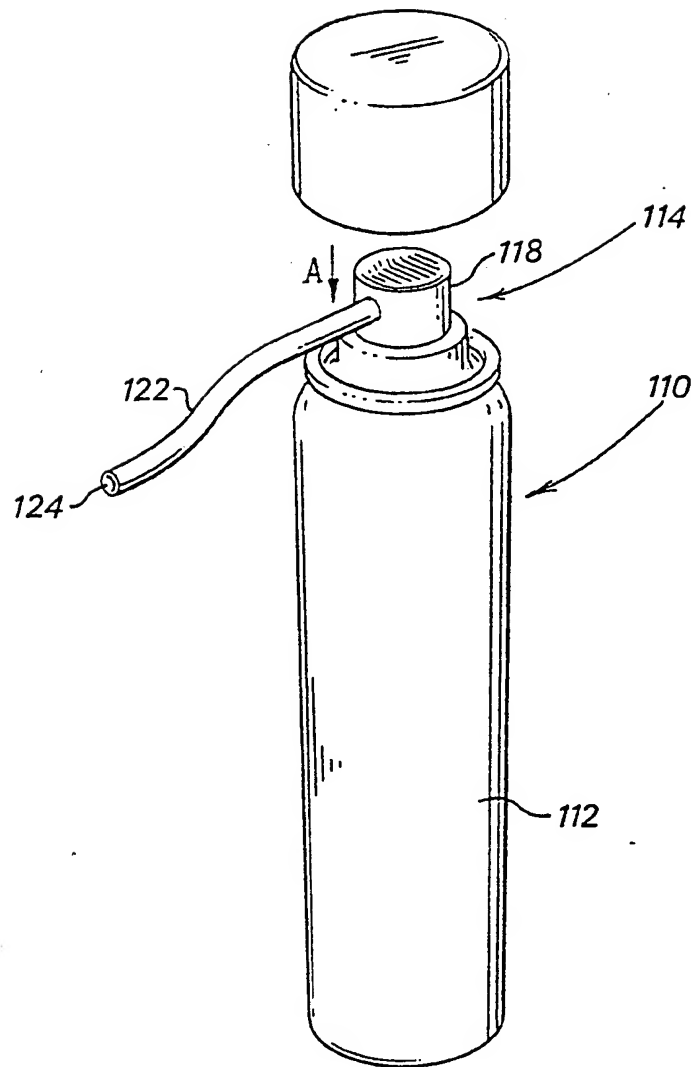
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5. A beverage container substantially as herein described with reference to either of the illustrated embodiments.

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# INTERNATIONAL SEARCH REPORT

International Application No.

PCT IB 99/01183

**A. CLASSIFICATION OF SUBJECT MATTER**  
IPC 7 B65D83/14

According to International Patent Classification (IPC) or to both national classification and IPC

**B. FIELDS SEARCHED**

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 B65D

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

**C. DOCUMENTS CONSIDERED TO BE RELEVANT**

Category	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	DE 296 11 611 U (GLATSCHKE) 5 December 1996 (1996-12-05)	1-3
Y	page 4, line 32 - line 34; figures ---	4
Y	DE 92 17 576 U (REINELT & TEMP GMBH) 27 May 1993 (1993-05-27) * Figur (Ref. 16) * -----	4

☐ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

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# INTERNATIONAL SEARCH REPORT

Information on patent family members

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Patent document cited in search report	Publication date	Patent family member(s)	Publication date
DE 29611611 U	05-12-1996	NONE	
DE 9217576 U	27-05-1993	NONE	